SOV/112-59-2-2326

Propagation of Electromagnetic Waves Over a Periodic Structure of Conducting . . . .

determined by superposing plane waves whose amplitudes are periodic functions of two coordinates. The dispersion equation set up in the article is solved graphically. Plots are presented of propagation and attenuation constants against the wavelength-to-structure-period ratio and also against the plate resistance per unit area.

V.Ye.B.

Card 2/2

KOLPAKOV, V.V.

Propagation of electromagnetic waves in a periodic structure of conducting plates. Izv.vys.ucheb.zav.; radiofiz. 1 no.2:2-7 '58.
(MIRA 11:11)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom universitete.
(Radio waves)

KOLPAKOV, V.V.

Reflection of plane electromagnetic waves form a periodic structure
of conduction plates. Izv.vys.ucheb.zav.; radiofiz. 1 no.2:8-12 '58.
(MIRA 11:11)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom universitete.
(Radio waves)

9.1912

AUTHOR: Kolpakov, V.V. ,

TITLE: Reflection of plane electromagnetic waves from a semi-limited periodic structure consisting of conducting plates

PERIODICAL:

TEXT: A study of the reflection of a plane monochromatic e.m. wave from a semi-restricted periodic structure consisting of thin plates with finite conductivity. The problem is solved using approximate boundary conditions for thin plates. [Abstractor's note: Complete translation].

Card 1/1

9,1300

29311
S/109/61/006/010/009/027
D201/D302

AUTHOR: Kolpakov, V.V.

TITLE: Diffraction of surface electromagnetic waves at the
              impedance discontinuity of a circular cylinder

PERIODICAL: Radiotekhnika i elektronika, v. 6, no. 10, 1961,
              1658 - 1664

TEXT: The author analyzes the problem of diffraction of electro-
magnetic surface waves at the impedance discontinuity of an infini-
te impedance cylinder. Since this cylindrical system finds appli-
cation in surface wave propagation systems, the solution of this
problem is both of technical and practical interest. The problem
consists of integrating the differential equation of an axially
symmetric TM-wave for the sole component of its magnetic field with
boundary conditions

$$E_z = ZH_\varphi \qquad (1)$$

at the surface of the impedance cylinder and with conditions at in-

Card 1/6

Diffraction of surface ...

finity. In the plane $z = 0$

$$Z = \begin{cases} Z_1 = -iQ_1 \text{ for } z < 0 \\ Z_2 = -iQ_2 \text{ for } z > 0 \end{cases} \quad (2)$$

and thus with $k = \omega/c = 2\pi/\lambda$ the inhomogeneous Wiener-Hopf integral equation

$$H(a, z) = H_1^{(1)}(av_1)e^{ih_1z} + 2\pi ak(Q_2 - Q_1) \int_0^\infty G(a, a, z, z')$$

$$H(a, z')dz', \quad (9)$$

is obtained which is solved in the complex variable plane by the usual methods and results in

$$H(\rho, z) = H_1^{(1)}(\rho v_1)e^{ihz} +$$

$$+ \frac{k(Q_2 - Q_1)}{2\pi i} H_1^{(1)}(av_1) \Psi_1(h_1) \int_{-\infty}^{+\infty} e^{-iwz} \frac{H_1^{(1)}(\rho v) \, dw}{(w + h_1) \Psi_2(w) [vH_0^{(1)}(av) + kQ_2 H_1^{(1)}(av)]}. \quad (18)$$

Card 2/6

Diffraction of surface ...

which can be further processed and gives

$$H(\rho, z) = H_1^{(1)}(ov_1)e^{ih_1 z} + \frac{h_1 - h_2}{h_1 + h_2} \exp M(h_1) \, H_1^{(1)}(\rho v_1)e^{-ih_1 z},$$

$$z < 0, \qquad\qquad (19a)$$

the first term of which represents an incident ot the discontinui-
ty surface wave, the second term representing the reflected wave.
The field of the transmitted surface wave is derived as

$$H(\rho, z) = \frac{2h_1}{h_1 + h_2} \sqrt{\frac{[H_1^{(1)}(av_1)]^2 - H_0^{(1)}(av_1) H_2^{(1)}(av_1)}{[H_1^{(1)}(av_2)]^2 - H_0^{(1)}(av_2) H_2^{(1)}(av)}} \times$$

$$\times \exp\left[\frac{M(h_1)}{2} - \frac{M(h_2)}{2}\right] H_1^{(1)}(\rho v_2) \, e^{ih_2 z}, \qquad z > 0, \qquad (19b)$$

The power reflection coefficient R and transmission coefficient T
are determined by

Card 3/6

$$R = \left(\frac{\beta_1 - \beta_2}{\beta_1 + \beta_2}\right)^2 \exp 2X(\beta_1), \qquad\qquad (20)$$

$$T = \frac{4\beta_1\beta_2}{(\beta_1 + \beta_2)} \exp\left[X(\beta_1) - X(\beta_2)\right], \qquad (20)$$

in which $\beta_1 = h_1/K$ and $\beta_2 = h_2/k$ - the delay factors at both sides of the impedance discontinuity. From the analysis of graphs of relevant expressions it is shown that R, T and η depend on a/λ only for small values of a/λ. For $a/\lambda > 1$, R/R_∞, T/T_∞ and η/η_∞ differ little from unity and for the above values of a/λ the coefficients R, T and η may be evaluated from the approximate formulae

$$R = \frac{\beta_1^2 - 1}{\beta_1^2(\beta_1 + \beta_2)^2}\left(\sqrt{\beta_1^2 - 1} - \sqrt{\beta_2^2 - 1}\right)^2 \exp\left(\frac{3}{4a^2k^2}\frac{\sqrt{\beta_2^2 - 1} - \sqrt{\beta_1^2 - 1}}{(\beta_2^2 - 1)\sqrt{\beta_2^2 - 1}}\right), \qquad (22)$$

$$T = \frac{4\sqrt{\beta_1^2 - 1}\sqrt{\beta_2^2 - 1}}{\left(\sqrt{\beta_1^2 - 1} + \sqrt{\beta_2^2 - 1}\right)^2}\exp\left[\frac{3}{8a^2k^2}\frac{\left(\sqrt{\beta_2^2 - 1} - \sqrt{\beta_1^2 - 1}\right)^2}{(\beta_1^2 - 1)(\beta_2^2 - 1)}\right].$$

For $a/\lambda \to 0$, the function $X(u)$ is zero and coefficients R, T and

Card 4/6

Diffraction of surface...

tend to

$$R_0 = \left(\frac{\beta_1 - \beta_2}{\beta_1 + \beta_2}\right)^2, \quad T_0 = \frac{4\beta_1\beta_2}{(\beta_1 + \beta_2)^2}, \quad \eta_0 = 0;$$

the radiation field resulting from the diffraction of a surface wave at the impedance discontinuity is determined by going over to the new variabe τ: $w = k \cos \tau$, $v = k \sin \tau$, and to the spherical system of coordinates and by evaluating the integral of Eq. (18) for large values of $k\tau$ (saddle point $\tau = \pi - \theta$). Thus

$$H(r, \theta) = \frac{1}{\pi i} \frac{e^{ikr}}{r} \times$$

$$\times \sqrt{2(Q_2 - Q_1)\frac{h_1^2(h_1 - h_2)}{k^2(h_1 + h_2)} ak \{[H_1^{(1)}(av_1)]^2 - H_0^{(1)}(av_1)H_2^{(1)}(av_1)\} \exp\left[\frac{M(h_1)}{2}\right]} \times$$

$$\times \frac{1}{\sqrt{[\sin\theta H_0^{(1)}(ak\sin\theta) + Q_1 H_1^{(1)}(ak\sin\theta)][\sin\theta H_0^{(1)}(ak\sin\theta) + Q_2 H_1^{(1)}(ak\sin\theta)]}} \times$$

$$\times \frac{k(k\cos\theta + h_2)}{\sqrt{(k^2\cos^2\theta - h_1^2)(k^2\cos^2\theta - h_2^2)}} \exp\left[-\frac{M(k\cos\theta)}{2}\right]. \tag{23}$$

(23)

Card 5/6

Diffraction of surface ...

is found. The solution for a TE-wave is not given since all formulae as obtained for a TM-wave remain valid for a TE-wave, provided H_φ is substituted by E_φ; E_ψ by $- H_\rho$; E_z by $- H_z$ and Z by $1/Z$. There are 5 figures and 5 references: 3 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: A.F. Kay, Scattering of a surface wave by a discontinuity on reactance, IRE, IRE, Trans. 1959, AP-7, 1, 22.

SUBMITTED: January 18, 1961

Card 6/6

9.1912

8/194/62/000/007/105/160
D271/D308

AUTHOR: Kolpakov, V.V.

TITLE: Approximate boundary conditions for conducting plate

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
               no. 7, 1962, abstract 7zh208 (Tr. Sibirsk. fiz.-tekhn.
               in-ta pri Tomskom un-te, 1960, no. 39, 18-24)

TEXT: Approximate boundary relations between tangential components
of electric and magnetic fields are derived for an infinite plate
with a finite conductance. In a particular case when plate thick-
ness is smaller than that of the skin layer, the approximate boun-
dary conditions assume an especially simple form. The problem of
reflection of a plane wave from a conducting film is considered as
an example of application of the approximate boundary conditions.
[Abstracter's note: Complete translation.]

Card 1/1

EWC(t)/EWP(e)/EPA(s)-2/EWT(m)/EPF(c)/EWT(l)/EWA - /EPR/EPA(w)-2/T/EWP(t)/
EWP b. Rf-4, Rr-4/Rs-4/Rt-7/Rab-10

AR5015168   UR/0137/65/000/005/0038/0038

zh. Metallurgiya, Abs. 50226   74
                                                                  22
B. T.: Lebedeva, L. P.: Ignatov, I. R.; Shpakov, Ya. V.   C

ata on the technology of manufacturing articles of friction
with material, brand FMK-11 [Translator's note: original gives FMK-P.]

Tr. 7 Vses. nauchno-tekhn. konferentsii po poroshk. metallurgii.
357-265

metal ceramic material, friction metal   mechanical
physical property, iron, powder metal
metal ceramic

An investigation has been made of t
the technological conditions of
material, and friction propert:
the use of oxidized powders
An increase in the oxygen content
wear of the material and the connected parts (chilled cast iron)

AR5015168   2.

~ ise in pressing pressure, the wear of the material and the cast iron
. The optimum pressing pressure is 6 to u,/cm . Use of continuous
sintering conditions permitted shortening the sintering time to 4.5-5 hrs and
the technology of the process. Sintering var lit under a pressure
. To avoid overbaking of disks, it is recommended to use
paint (22-24% black graphite, 14-16% parts sand, 5-8%
clay, remainder water). The paint is applied to the packed disks
ring without special preparation of the surface. V. Krin.

SUB CODE: MM   ENCL: 00

AP501737.

UR,325,...   ...7S—4/...../Pw—4
621.325   .../0128/0119

...chenko, I. M.; Krysin, B. ...; Ko...kov, ...; Smirnov,
...lovskiy, V A.; Taytaenko, M. ...; ...lova, ...; Vino-
... Levin, M. M.; Edel'man, M. I.

...d for producing friction parts from powder components.

..., No. 171702

Bulleten' izobreteniy i tovarnykh znakov, ..., ..., 1955,

Aircraft brake , friction part , powder metallurgy/...

Author Certificate has been ... ... pro-
... parts (e.g., brake-unit parts ... ... aircraft from pow-
... To reduce wear, the mixture ... ...% iron,
..., 3—10% barium sulfate, 3—7% gra... ..., 2—...% asbestos,
...on oxide. The mixture is compacted ... ... a pressure
...nd sintered at a temperature of ... ... and a pressure of
[LB]

AP501787

ENCL: 00

MM AC

30May63

OTHER: 000   ATD PRESS: 4041

000

2/2

L 00598-66   ENP(e)/EPR(s)-2/EWT(m)/EPF(c)/EWF(1)/EWA(d)/EPA(w)-2/T/ENP(t)/ENP(k)/
ENP(z)/ENP(b)   BW/DD/RM/JG/DJ/WN

ACCESSION NR: AR5018950   UR/0276/65/000/007/B047/B047
                                           621.762.3:621.81

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya. Svodnyy tom, Abs. 7B333

AUTHOR: Krysin, B. T., Lebedeva, L. P., Ignatov, L. N., Kolpakov, Ya. V.

TITLE: New developments in the technology of part manufacture from FM-11 friction cermets

CITED SOURCE: Tr. VII Vses. nauchno-tekhn. konferentsii po poroshk. metallurgii, Yerevan, 1964, 257-265

TOPIC TAGS: powder metallurgy, friction cermet, oxidized metal powder, process factor effect, antiscorch compound, FM-11 cermet

TRANSLATION: The authors studied the effects of original material condition and sintering-compacting(process factors on the physico-mechanical and friction properties of FMK-11 cermet.) It is shown that use of oxidized Fe and Cu powders simplifies the technological process (i.e. eliminates reduction and crushing operations), reduces the manhours required and decreases the cost of a finished piece without lowering quality. The cermet is characterized by high strength and hardness, as well by minimal wear, when compacted at a pressure of about 6 t/cm^2.

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L 00598-66

ACCESSION NR: AR5018950

an effective pressure of 20 - 25 kg/cm^2 is optimal for the sintering process. The sintering period was reduced from 7 to 4.5 - 5.0 hours when temperature was increased steadily to assigned levels. The period required to preheat the workpiece to an assigned temperature was reduced from 4.5 to 2.0 - 2.5 hours. The authors recommend the use of an antiscorch coating composed of 22 - 24% black graphite, 14 - 16% quartz sand, 9 - 10% refractory clay and the balance in water. Use of the coating facilitates automation of the coating application process and an improved industrial hygiene environment. Two illustrations and 7 tables.

SUB CODE: MT   ENCL: 00

Card 2/2

Card: 1/2

91

CA

11G

Reaction of Mautner and Pick from the standpoint of comparative pathology. I. E. V. Kolpakov. J. med., Ukraine 9, 1323-38(in Russian, 1339-40; in English, 1340-1)(1940).—An attempt was made to discover if the theory of Mautner and Pick is generally applicable to Carnivora, if the mechanism is necessarily connected with means of feeding and if the theory may be applied to man. The sudden detention of blood in the liver during histamine, peptone or anaphylactic shock is found in wolves and foxes, as well as dogs; it is probably characteristic of Canidae. The liver vol. decrease in such shock, not evident in dogs, is found in cats, pigs, opossums and sometimes rabbits. Hedgehogs, rats, guinea pigs and goats do not give any marked liver reaction in situ to histamine or anaphylaxis (goats, guinea pigs). Not all Herbivora react to histamine with vasoconstriction and hypertension, as is generally believed; the goat responds with hypotension. Likewise, the vascular reaction of the liver to adrenaline is not only characteristic of Carnivora but is also found (decreased in vol.) in rabbits, pigs, rams and goats. The blood pressure drops during histamine or anaphylactic shock in varanus (lizard); the liver is refractory.

J. Pinchack

ASA-SLA   METALLURGICAL LITERATURE CLASSIFICATION

[Hepatic vein sphincter mechanism in different species.] E. V. Kotpalov (*J. Med. Ukraine*, 1948, 18, 458—456).—A well developed mechanism was found in all species of Canidæ (dog, wolf, jackal, fox), Mustelidæ (marten and badger), and Ursidæ (brown bear), not in domestic cats, and poorly developed in goats and swine. It was demonstrated by anaphylactic and histamine reactions.

ASM-SLA   METALLURGICAL LITERATURE CLASSIFICATION

Kolpakov, Ye.V.

KOLPAKOV, Ye.V., doktor biol.nauk

Comparative study of muscular sphincters of the hepatic veins.
Medych.zhur. 19 no.2:14-30 '49.   (MIRA 10:12)

1. Z viddilu porivnyal'noi patologii (zav. viddilu - chlen-kor.
AN URSR M.M.Sirotinin) Institutu klinichnoi fiziologii im. akad.
O.O.Bogomol'tsya AN URSR (direktor - chlen-kor. AN URSR P.Ye.Kavets'-
kiy).
        (HEPATIC VEINS)

KOLPAKOV, YE. V.

25957. Kolpakov, Ye. V. Sravnitel'noye issledovaniye myshechnykh shlyuzov pechen-cchnykh von. Med. zhurnal, T. xix, Vyp. 2, 1954, s. 14-30.---Na ukr. yaz.----Rezyume na rus. yaz.- Bibliogr: 16 nazv.

SO: Knizhnaya Letopis', Vol. 1, 1955

KOLPAKOV, Ye.V.; RAYETS'KA, H.P.

Erroneous views on the mechanism which regulates blood circulation in the
liver. Medych.zhur. 22 no.6:73-82 '52.   (MLRA 6:10)

1. Instytut klinichnoyi fiziologiyi im. O.O.Bohomol'tsya Akademiyi nauk URSR.
                              (Liver) (Blood--Circulation)

KOLPAKOV, Ye.V.; LAUER, N.V.

Effect of experimental hepatic insufficiency on conditioned reflex
activity in dogs. Vop. fiziol. no.10:44-57 '54   (MLRA 10:5)

1. Institut fiziologii im. A.A. Bogomol'tsa Akademii nauk USSR.
   (LIVER--DISEASES) (CONDITIONED RESPONSE)

KOLITINCE, Ye.V.

CHAGOVETS, Vasiliy Yuri'yevich; BABSKIY, Ye.B., akademik, otvetstvennyy
redaktor; KAVETSKIY, R.Ye., akademik, redaktor; KOLPAKOV, Ye.K.,
professor, redaktor; MAKARCHENKO, A.F., redaktor; VOL'BORT, Yu.V.,
akademik, redaktor; SHEZHIN, M.I., redaktor izdatel'stva;
KOLOMIYCHUK, V.A., tekhnicheskiy redaktor.

[Selected works; in one volume] Izbrannye trudy; v odnom tome.
Kiev, Izd-vo Akad.nauk USSR, 1957. 513 p.   (MIRA 10:11)

1. Akademiya nauk USSR (for Babskiy, Kavetskiy, Vol'bort).
2. Chlen-korrespondent Akademii nauk USSR (for Makarchenko).
                        (Electrophysiology)

KOLPAKOV, Ye.V.

Nikolay Nikolayevich Sirotinin; on his 60th birthday. Fiziol.zhur.
[Ukr.] 3 no.1:12-15 Ja-F '57.   (MLRA 10:3)
            (SIROTININ, NIKOLAI NIKOLAEVICH, 1896-)

KOLPAKOV, Ye.V. [Kolpakov, IE.V.]

Vascular reflexes of the liver as related to the action of the
sphincters of liver veins. Fiziol.zhur. [Ukr.] 5 no.3:322-328
My-Je '59.   (MIRA 12:10)

1. Institut fiziologii im. O.O.Bogomol'tsya AN URSR, laborato-
riya porivnyal'noi i vikovoi fiziologii.
                    (LIVER--BLOOD VESSELS)

KOLPAKOV, Ye.V, [Kolpakov, IE.V.]

      Charles Darwin; on the 150th anniversary of his birth. Fiziol.
zhur. [Ukr.] 5 no.3:295-300 My-Je '59.   (MIRA 12:10)
          (DARWIN, CHARLES ROBERT, 1809-1882)

KOLPAKOV, Ye.V. [Kolpakov, IM.V.]

On the methodology used in creating an Ekk-Pavlov fistula.
Fiziol.zhur. 6 no.1:125-130 Ja-F '60. (MIRA 13:5)

1. Institut fiziologii im. A.A. Bogomol'tsa AN USSR.
(FISTULA)

KOLPAKOV, Ye.V. [Kolpakov, IE.V.]

Comparative physiology of blood circulation in the liver. Fiziol.
zhur. [Ukr.] 7 no.3:395-408 My-Je '61.   (MIRA 14:5)

1. Laboratoriya sravnitel'noy i vozrastnoy fiziologii Instituta
fiziologii im. A.A.Bogomol'tsa AN USSR, Kiyev.
                (LIVER—BLOOD SUPPLY)

MAKARCHENKO, A.F., akademik, otv. red.; SIROTININ, N.N., zam. otv. red.;
KOLPAKOV, Ye.V., prof., red.; LAUER, N.V., doktor med. nauk,
red.; GUREVICH, M.I., doktor med. nauk, red.; KOLCHINSKAYA,
A.Z., kand. med. nauk, red.; YANKOVSKAYA, Z.B., red. izd-va;
BEREZOVSKAYA, D.N., tekhn. red.

"Oxygen deficiency; hypoxia and adaptation to it] Kislorod-
naia nedostatochnost'; gipoksiia i adaptatsiia k nei. Kiev,
Izd-vo AN USSR, 1963. 609 p.   (MIRA 17:2)

1. Akademiya nauk URSR, Kiev. Instytut fiziologii. 2. Akademiya
nauk Ukr. SSR (for Makarchenko). 3. Deystvitel'nyy chlen AMN
SSSR (for Sirotinin).

KOLPAKOV, Ye.V. [Kolpakov, IE.V.]

Volodymyr Ivanovich Vernads'kii; on the 100th anniversary of his
birth. Fiziol.zhur.[Ukr.] 9 no.1:3-5 Ja-F '63.

(MIRA 18:5)

LEBEDEVA, L.P.; KRYSIN, B.T.; KOLPAKOV, Ya.V.; IGNATOV, L.N.;
    MIKHAYLOVSKIY, V.A.; SMIRNOV, G.G.; TSYTSENKO, M.V.

Experimental production of iron-base friction ceramic metals.
Porosh. met. 5 no.8:96-102 Ag '65.   (MIRA 18:9)

GOLYSHEV, A.B., kand. tekhn. nauk; POLISHCHUK, V.P., inzh.; KOLPAKOV, Yu.A., inzh.

Solving a relaxation problem during the calculation of continuous combined structures for the settling of supports. Sbor. trud. Inzh.-stroi. fak. Chel. politekh. inst. no.3:31-41 '63.   (MIRA 17:9)

1. Ural'skiy filial Akademii stroitel'stva i arkhitektury SSSR.

BERSENEV, A.P., kand.tekhn.nauk; KOLPAKOV, Yu.D., inzh.

Determining the moisture content of wood by its dielectric permea-
bility. Der.prom. 9 no.12:13+14 D '60.   (MIRA 13:12)
                        (Wood—Moisture)

S/081/61/000/024/010/086
B138/B102

AUTHORS: Skripov, V. P., Kolpakov, Yu. D.

TITLE: Scattering of light in carbonic acid along sub- and trans-
               critical isotherms

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1961, 73, abstract
               24B522 (Sb. "Kritich. yavleniya i flyuktuatsii v rastvorakh".
               M., AN SSSR, 1960, 126 - 136)

TEXT: The scattering of light on carbonic acid is studied for five sub-
$(19.98 - 30.67^{\circ}C)$ and five transcritical $(31.20 - 49.90^{\circ}C)$ isotherms.
Intensity of scattered I' and of transmitted light I are measured for three
lines of the mercury spectrum (5461, 4350 and 4060 $\overset{\circ}{A}$). The measurements
were made with high pressures (50 - 125 at) in the system. The extremum
values of I' increase on approaching critical temperature, and the
difference between I' for the liquid and the vapor becomes less. On the
transcritical isotherms I' peaks are observed, which also increase on
approaching critical point. With variable p - t, points for the I' peaks
of transcritical isotherms plot very well into a straight line, merging
Card 1/2

Scattering of light in carbonic...   S/081/61/000/024/010/086
B138/B102

with the saturated vapor pressure curve at critical point. The coordinates of the critical point are $31.00^{\circ}C$ and 73.2 ± 0.5 at. The results are in good agreement with the Rayleigh scattering law $I' = 1/\lambda^4$, with the exception of the isotherm peak at 31.20°, which is closer to critical point, where $I' = 1/\lambda^{3.2}$. [Abstracter's note: Complete translation.]

Card 2/2

KOLPAKOV, Yu.D)

30

PHASE I BOOK EXPLOITATION   SOV/5469

Soveshchaniye po kriticheskim yavleniam i flyuktuatsiyam v
    rastvorakh.   Moscow, 1960.

Kriticheskiye yavleniya i flyuktuatsii v rastvorakh; trudy
    soveshchaniya, yanvar' 1960 g.   (Critical Phenomena and Fluc-
    tuations in Solutions; Transactions of the Conference,
    January 1960) Moscow, Izd-vo AN SSSR, 1960.   190 p.   2,500
    copies printed.

Sponsoring Agencies: Akademiya nauk SSSR.   Otdeleniye khimi-
    cheskikh nauk.   Moskovskiy gosudarstvennyy universitet im.
    M. V. Lomonosova.   Khimicheskiy fakul'tet.

    Responsible Ed.: M. I. Shakhparonov, Doctor of Chemical
    Sciences, Professor; Ed. of Publishing House: E. S. Dragunov;
    Tech. Ed.: S. G. Tikhomirova.

PURPOSE ; This collection of articles is intended for scientific
    personnel concerned with chemistry, physics, and heat power
    engineering.
Card 1/9

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Critical Phenomena and Fluctuations   SOV/5469

COVERAGE: The book contains 24 of the 26 reports read at the
Conference on Critical Phenomena and Fluctuations in Solutions
organized by the Chemical Division of Moscow State University,
January 26-29, 1960. The reports contain results of investi-
gations carried out in recent years by Soviet physicists,
chemists, and heat power engineers. The Organizing Committee
of the Conference was composed of Professor Kh. I. Amirkhanov,
A. Z. Golik, I. R. Krichevskiy (Chairman), V. K. Semenchenko,
A. V. Storonkin, I. Z. Fisher, and M. I. Shakhparonov (Deputy
Chairman). References accompany individual articles.

TABLE OF CONTENTS:

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Critical Phenomena and Fluctuations   SOV/5469

Akhadov, Ya. Yu., and M. I. Shakhparonov [Laboratoriya fiziko-
khimii rastvorov, Khimicheskiy fakul'tet, Moskovskiy gosudarst-
venyy universitet im. M. V. Lomonosova -- Laboratory of
the Physical Chemistry of Solutions, Chemistry Division, Moscow
State University imeni M. V. Lomonosov]. Dielectric Properties
of Solutions in a Superhigh Frequency Field and Concentration
Fluctuations   14

Beridzo, D. K., and M. I. Shakhparonov [Laboratory of Physi-
cal Chemistry of Solutions, Chemistry Division, Moscow State
University imeni M. V. Lomonosov]. Light Scattering in Solu-
tions Having a Critical Stratification Point   21

Vuks, M. F., and L. I. Lisnyanskiy [Laboratoriya molekulyarnoy
optiki, Fizicheskiy fakul'tet, Leningradskiy gosudarstvennyy
universitet im. A. A. Zhdanova -- Laboratory of Molecular
Optics, Physics Division, Leningrad State University imeni
A. A. Zhdanov]. Intermolecular Interaction and Light Scat-
tering in Solutions of Pyridine and α- Picoline in Water   27

Card 3/9

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Critical Phenomena and Fluctuations   SOV/3459

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30

Critical Phenomena and Fluctuations   Sov/5469

High-Pressure [Studios], GIAP]. Kinetics of Heterogeneous
Processes in the Critical Region   54

Krichevskiy, I. R., N. Ye. Khazanova, and L. R. Linshits [Lab-
oratory of High Pressure [Studios], GIAP]. Liquid-Vapor
Equilibrium in the Critical Region of Liquid-System Strati-
fication   61

Lomova, N. N, and M. I. Shakhparonov [Laboratory of the
Physical Chemistry of Solutions, Chemistry Division, Moscow
State University imeni M. V. Lomonosov]. Permittivity and
Molecular Structure of Solutions   73

Lanshina, L. V., and M. I. Shakhparonov [Laboratory of the
Physical Chemistry of Solutions, Chemistry Division, Moscow
State University imeni M. V. Lomonosov]. Thin Structure of
the Line of Rayleigh Light Scattering in Solutions   77

Mokhov, N. V., and Ya. M. Labkovskiy [Kafedra eksperimental'noy
fiziki, Dnepropetrovskiy gosudarstvennyy universitet -- Depart-

Card 5/9

30

Critical Phenomena and Fluctuations   Sov/5469

Card 6/9

Critical Phenomena and Fluctuations   SOV/5469

Critical Phenomena and Fluctuations   SOV/5469

Card 8/9

30

Critical Phenomena and Fluctuations   SOV/5469

Shimanskaya, Ye. T., Yu. I. Shimanskiy, and A. Z. Golik [Laboratory of Molecular Physics, Division of Physics, Kiyev State University imeni T. G. Shevchenko]. Investigation of the Critical State of Pure Substances by Topler's Method   171

Resolution of the Conference on Critical Phenomena and Fluctuations in Solutions   189

AVAILABLE: Library of Congress (QD545.S73)

JP/dfk/jw
10-28-61

Card 9/9

80284
S/170/60/003/04/05/027
B007/B102

5.4100

AUTHORS: Skripov, V.P., Kolpakov, Yu.D.

TITLE: An Investigation of the Interphase-region Transition in Carbonic
              Acid From Light Scattering

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1960, Vol. 3, No. 4, pp. 30-36

TEXT: In this paper experiments are described in which scattered as well as
transmitted light was observed during isothermal change of the state of the
substance. The experiments were made with carbonic acid. A section through the
test chamber is shown in Fig. 1. The experimental arrangement consisted of this
chamber, of a system for refilling the device with carbonic acid, a thermal
pressure control and an optical system. The device is briefly described. Eight
isothermal curves (6 transcritical and 2 subcritical) of the intensity of
scattered and of transmitted light as depending on carbonic-acid pressure were
taken. The entire temperature range of the measurements was 8°C. The dependence
of height and position of the maxima of I' (intensity of scattered light) on
the magnitude of the difference ΔT between testing temperature and critical
temperature is very conspicuous in these curves (Fig. 2). The intensity rise of

Card 1/3

An Investigation of the Interphase-region Transition   S/170/60/003/04/05/027
in Carbonic Acid From Light Scattering   B007/B102

80284

scattered light becomes weaker with growing distance from T_c (critical temperature).
Vertical lines mark the points of condensation in the below-critical isothermal
lines. Fig. 3 shows the dependence of the I'-maxima on ΔT for three spectral
lines. The maximum of light scattering shifts towards higher pressure with
rising temperature (Fig. 2). The relation between temperature and pressure at
the I'-maxima is, near the critical point, a straight line with the inclina-
tion of dp/dT = 1.50 at/deg or, in reduced quantities, $d\pi/d\tau$ = 6.2. The latter
value is almost equal to that obtained by M.G. Kaganer (Ref. 6) for the critical
isochoric curve of various nonpolar gases ($d\pi/d\tau$ = 6.0). In the experiments
described also the intensity I of the transmitted light was measured. The minima
of transmittent light were obtained in the range of the scattering maxima. The
results of earlier measurements made by one of the authors (V.P. Skripov) and
G.P. Nikolayev (Ref. 11) have already been given. The qualitative dependence
of light scatter on wavelength is shown in table 1 and Fig. 3. The light
scattering observed had the character of a Rayleigh scattering, i.e. $I' \sim 1/\lambda^4$.
The data of light scatter and formula (3) (Ref. 8) may be used for calculating

elasticity $f = -(dp/dv)_T$ or compressibility $\beta = \frac{1}{v} (dv/dp)_T$ of the substance

Card 2/3

KOLPAKOV, Yu.D.; SKRIPOV, V.P.; GORBUNOVA, E.N.

Scattering of light in carbonic acid and its relation to the
equation of state. Ukr.fiz.zhur. 7 no.7:787-792 Jl '62.
(MIRA 12:15)
1. Ural'skiy politekhnicheskiy institut i Ural'skiy filial AN
SSSR, g. Sverdlovsk.
(Light—Scattering) (Carbonic acid) (Equation of state)

L 11997-66   EWT(l)/EWT(m)/ETC(m)   IJP(c)/RPL   WW/JW/GG/RM

ACC NR: AP5022863   SOURCE CODE: UR/0051/65/019/003/0392/0402

AUTHOR: Skripov, V. P.; Kolpakov, Yu. D.

ORG: none

TITLE: Light scattering in the vicinity of the critical liquid-vapor point. I. Apparatus. Experiments with carbon dioxide and sulfur hexafluoride

SOURCE: Optika i spektroskopiya, v. 19, no. 3, 1965, 392-402

TOPIC TAGS: carbon dioxide, sulfur compound, light scattering, phase transition, critical point

ABSTRACT: This is a continuation of earlier work by the authors (Ukr. fiz. zh. v. 7, 787, 1962 and earlier), where particular attention was paid to the connection between scattered light and the nature of supercritical transitions in carbon dioxide. In the present investigation improved equipment was used, and greater attention was paid to methods of investigating opalescence. In addition, measurements were made for the first time on sulfur hexafluoride. The light scattering was determined from the isotherms in a broad region near the critical points of CO_2 and SF_6 using a pressure-regulated thermostatic chamber. The lines 5780, 5461, 4358, and 4046 Å from the mercury spectrum were used as sources, and the transmitted (unpolarized) and scattered light was recorded photoelectrically. The apparatus and procedure are described in detail. The critical parameters of the carbon dioxide and sulfur hexafluoride were found to be 31.06 and 45.55C (critical temperature) and 73.1 and 37.7 atms (critical

Card 1/2   UDC: 535.36

L 11997-66
ACC NR: AP5022863

O

pressure), respectively. These agree well with data by others. The scattering abilities of CO_2 and SF_6 are compared and the ratio of the maximum intensity of the scattered light of SF_6 is found to exceed that of CO_2 by a factor 1.77, which compares well with the calculated average value 1.83. Orig. art. has: 7 figures, 4 formulas, and 6 tables.

SUB CODE: 20/   SUBM DATE: 10Jun64/   ORIG REF: 010/   OTH REF: 005

Card 2/2

KOLPAKOV, YU. G.

Kolpakov, YU. G.   "Track automobile roads of constant type
    (Investigation of the operation of the thoroughfare portion
    of automobile roads)." Min Higher Education Ukrainian SSR.
    Kiev Automobile and Road Inst. Kiev, 1956. (Dissertations
    for the Degree of Candidate in Technical Science)

So: Knizhnaya letopis', No. 27, 1956. Moscow. Pages 94-109; 111.

KOLPAKOV, Yu.G., kand.tekhn.nauk

Using granite chippings from stone quarries for bituminous
pavements. Avt.dor.i dor.stroi. no.1:185-192 '65.
(MIRA 18:11)

69548

S/078/60/005/05/27/037
B004/B016

5.2200(A)

AUTHORS: Filinov, F. M. (Deceased), Tekster, Ye. N., Kolpakova, A. A.,
             Panteleyeva, Ye. P.

TITLE: Investigation of the Solubility of Thorium Pyrophosphate in Acids,
             and Investigation of the Equilibrium Between Solid Phase and
             Solution in the Systems ThP_2O_7 - $Na_4P_2O_7$ - H_2O and ThP_2O_7 - $Th(NO_3)_4$-
             H_2O

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 5, pp. 1149 - 1156

TEXT: The solubility of ThP_2O_7 was studied in HCl, HNO_3, and H_2SO_4 in the concen-
tration range 0.1 - 0.5 N by means of the radiochemical indicator UX_1. The method
is described in a paper by F. M. Filinov and V. F. Budanova (Ref. 1). The activity
of the solutions was measured on the B-apparatus by means of a B-1 β-counter.
Fig. 1 shows the vessel applied. Data on solubility are presented in Fig. 2, and
for comparison, also the data of Ref. 8 are given. The solubility of ThP_2O_7 in
solutions of $Na_4P_2O_7$ in the concentrations range 0.02 - 0.2 M was also determined

Card 1/2

AP3000643
AFFTC, ASL, SSD

S/0080/63/036 003/0530/0536

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Bolgakova, A. A., Markovskiy, L. Ya.

TITLE: Luminescent properties of BaO-SiO sub 2 systems activated by cerium and manganese

SOURCE: Zhurnal prikladnoy khimii, v. 36, no. 3, 1963, 530-536

TOPIC TAGS: Ba-silicates, cerium, manganese, luminescence, luminophores

ABSTRACT: An investigation of the luminescent properties of Ba silicates activated by the combined action of trivalent Ce and Mn showed luminescence dependent upon the compositions of the silicate. Ba sub 3 SiO sub 5 and Ba sub 2 SiO sub 4 are non-luminescent; Ba sub 3 SiO sub 3 has a very weak, and Ba sub 2 Si sub 3 0 sub 8 a strong light blue, Lambda = 440-millimicron emission; and BaSi sub 2 0 sub 5 and ... was richer in SiO sub 2 (BaSi sub 2 0 sub 5 admixed with SiO sub 2) give a ... white luminosity, Lambda = 400 and Lambda = 500 millimicrons. X-rays ... Ba or Mn silicates were formed. In the transition phases from Ba sub ... sub 3 to BaSi sub 2 0 sub 5 where x-rays showed BaSi sub 2 0 sub 5 - ... e luminosity prevailed; this was explained by the greater intensity of ... by traces, not detected by x-rays of Ba sub 2 Si sub 3 0 sub 8 - Ce, Mn, as confirmed by mechanical mixtures of the former with 5-10% of the latter
Card 1/2

L 12975-63
ACCESSION NR: AP3000643

silicate. Extensive study was made to determine the optimmm roasting temperature, effect of BaF sub 3 and BaCl sub 2 as flux, and concentration of activators for the preparation of these luminophores: 1100° with 3% BaCl$_2$ flux and 10% CeO$_2$ plus 1.4% Mn. The emission of the luminophore Ba sub 2 Si sub 3 0 sub 8 - Ce, Mn is not more than 35% than emission from ZnS - Ag and 30% greater than from MgWO sub 4. In conclusion the authors express their appreciation to Yu. D. Kondrashev for conducting x-ray structural analyses of test specimens. Orig. art. has: 3 tables, 6 figures.

ASSOCIATION: Gosudarstvenny*y institut prikladnoy khimii (State Institute of Applied Chemistry)

SUBMITTED: 27Jul62   DATE ACQ: 12Jun63   ENCL: 00

SUB CODE: CE   NO REF SOV: 007   OTHER: 013

Card 2/2

ACCESSION NR: AT4044998   S/3110/64/000/051/0102/0106

AUTHOR: Kolpakova, A.A., Markovskiy, L. Ya.

TITLE: Luminescent properties of the magnesium silicate system after activation with cerium and manganese

SOURCE: Leningrad. Gosudarstvenny*y institut prikladnoy khimii. Trudy*, no. 51, 1964. Khimiya i tekhnologiya lyuminoforov (Chemistry and technology of luminophors). 102-106

TOPIC TAGS: luminophor, magnesium silicate, activated magnesium silicate, silicate luminescence, cerium, manganese, luminescence spectrum, absorption spectrum

ABSTRACT: The phase composition of the MgO-SiO_2 system, which is important in the manufacture of ceramics and refractory materials, has been studied in detail, but its luminescent properties are insufficiently understood. The authors therefore studied the relationship between phase composition and luminescence in the MgO-SiO_2 system after activation with CeO_2 (5 wt. %) and/or $MnCl_2 \cdot 4 H_2O$ (1%) by x-ray and spectroscopic analysis of samples with varying composition (in steps of 5 mol. %). In order to achieve equilibrium, the luminophor was heated for 20 hrs. at 1200C in the presence of MgF_2

Card 1/3

ACCESSION NR: AT4044998

before activation. The effect of the activating elements on the luminescence and absorption spectra are shown in Fig. 1 of the Enclosure. The experimental data show that the Mg_2SiO_4 phase does not show luminescence when activated with Ce alone, and produces only a very faint dark-red light in the presence of Mn. The $MgSiO_3$ phase also produces very faint luminescence when activated with either Mn (red light) or Ce (blue light) alone, but in the presence of both Mn and Ce the luminescence shows two peaks (390 and 670 mμ). The strongest luminescence was produced by activated lumino-phors containing excess SiO_2, which apparently facilitates the formation and activation of protoenstatite. "Yu. D. Kondrashev participated in the x-ray studies." Orig. art. has: 1 table and 2 figures.

ASSOCIATION: Gosudarstvenny⁺y institut prikladnoy khimii, Leningrad (State Institute of Applied Chemistry)

SUBMITTED: 00   ENCL: 01   SUB CODE: IC

NO REF SOV: 007   OTHER: 010

Card 2/3

KOLPAKOVA, A.A.; PEKERMAN, F.M.

Luminophors with a silicate base and radiation in the ultra-violet band of the spectrum. [Trudy] GIPKH no.51:88-96 '64. (MIRA 18:5)

EPF(c)/EWT(m)/EWP(t)/EWP(b) ...A

NR: AP5017771   UR/0080/65/038/007 /...3/1526

535.37+546.42'21+546.284

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22
B

Kolpakova, A. A.; Markovskiy, L. Ya.

...uescent properties of the SrO - sil... ... ... by cerium and

... prikladnoy khimii, v. 38, no. 7, ...

... strontium silicate, luminophor, ...escence

... transformations in the SrO - ... ... associated
... luminescent properti... ... ...
... in the Sr_3SiO_5 phase does... ... ... phase
... ...ew of the luminophor (λ_{max} ... ...hase
... having a whitish-pink glow ... ... λ_{max}
...λ_{max} = 550 m..). To determine ... ...vators
...ightness) during the luminesce... ... ...absorption
measured without the activators, we... ... time,
activators. It was found that ... ...activate

Card 1/2

L 63058-65

2

cates. In $SrSiO_3 \cdot (e \cdot Mn$ luminophors ... luminescence takes
addition to the blue glow of cerium ... at ($\lambda_{max} - 400$ mμ),
a ster of energy to the manganese ... with the appear-
ance of band with $\lambda_{max} = 5?0$ mμ, ... stability of
... radiation intensity of $SrSiO_3$ ... $\cdot$ Mn luminophors,
... centrations of the activators a ... temperature and
... ng were established. The ... hank
... for carrying out the x-ray ... samples."
... figures and 2 tables.

ASSOCIATION: Gosudarstvennyy institut prikladnoy khimii (State Institute of Chemistry)

30May63   ENCL: ??   SUB CODE: IC, OP

004   OTHER: 00?

KOLPAKOVA, A.A.; MARKOVSKIY, L.Ya.

Luminescent properties of the $MgO-SiO_2$ system in case of its activation by cerium and manganese. [Trudy] GIPKH no.51:102-106 '64.

(MIRA 18:5)

L 16792-66   EWT(1)   IJP(c)

ACC NR: AP6002534

SOURCE CODE: UR/0286/65/000/023/0037/0037

AUTHORS: Kolpakova, A. A.; Markovskiy, L. Ya.

ORG: none

TITLE: A method for obtaining a luminophor based on strontium orthosilicate. Class 22, No. 176651 /announced by State Institute of Applied Chemistry (Gosudarstvennyy institut prikladnoy khimii)/

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 37

TOPIC TAGS: luminophor, strontium compound, cerium

ABSTRACT: This Author Certificate presents a method for obtaining a luminophor based on strontium orthosilicate. The process calls for the use of an activator and for heating the charge. To obtain a luminophor radiating in the violet region of the spectrum and with a high temperature resistance of radiation, trivalent cerium is used as the activator.

SUB CODE: 07/   SUBM DATE: 20Mar63

Card 1/1 SM

UDC: 621.3.032.35:661.843

ACC NR: AP7007595   SOURCE CODE: UR/0104/66/000/008/0095/0096

AUTHOR: Chuprakov, N. M.; Borovoy, A. A.; Postnikov, N. A.; Malychev, A. A.;
Magidson, E. M.; Sin'chugov, F. I.; Zeylidzon, Ye. D.; Barchaninov, G. S.;
Yermolenko, V. M.; Vasil'yev, A. A.; Sokolov, N. I.; Ul'yanov, A. S.;
Fedoseyev, A. M.; Sarkisov, M. A.; Rokotyan, S. S.; Azar'yev, D. I.; Arson,
G. S.; Dubinskiy, L. A.; Zhulin, I. V.; Kolpakova, A. I.; Antoshin, N. N.
Krikunchik, A. B.; Kuchkin, M. D.; Preobrazhenskiy, N. Ye.; Reut, M. A.;
Kheyfits, M. E.; Sharov, A. N.; Yakub, Yu. A.; Gorbunov, N. I.; Shurmukhin,
V. A.; Beschinskiy, A. A.

ORG: none

TITLE: Boris Sergeyovich Uspenskiy (on his 60th birthday)

SOURCE: Elektricheskiye stantsii, no. 8, 1966, 95-96

TOPIC TAGS: hydroelectric power plant, electric engineering personnel.

SUB CODE: 10

ABSTRACT: B. S. Uspenskiy was born in June 1906. He graduated from
the State Electric Machine Building Institute in 1928 as an electric
installation engineer. He worked in the State Electro-Technical Trust
for four years, then in the All-Union ElectroTechnical Union, where he
planned power construction units. Plans which he made up at that time
for the electrical portion of electrical stations and sub-stations are
still being used. He was invovled in planning and installation of the
electrical portion of hydro-electric power stations and powerful pumping
stations in the Moscow-Volga Canal. During the war, he was in charge in
installation of the Krasnogroskaya Heat and Electric Power Station, the
planning of the Urals Hydro-Electric Power Station and other projects. He

Card 1/2   0928 1534

STEPANOVA, Ye.I.; KOLPAKOVA, A.S.; SOKOLOVA, G.A.

Using the phage titer growth reaction for the check of dis-
infection effectiveness. Report No.1. Zhur. mikrobiol., epid.
i immun. 33 no.12:107-112 D.'62   (MIRA 16:5)

1. Iz TSentral'noy kontrol'no-issledovatel'skoy laboratorii
Moskovskoy gorodskoy dezinfektsionnoy stantsii.
              (DYSENTERY)   (BACTERIOPHAGE)

KOLPAKOVA, A. Ya., LEVINSTEYN, M. L., and SLAVIN, G. A.

"Recovery Voltages During Fault Clearing on Long Transmission Lines With
Series Capacitors", paper presented at International Conference on Large
Electric Systems (CIGRE), 16th Session, Paris, 30 May-9 June 1956.

KOLPAKOVA, A. I., BOGDANOVA, N. B., GERTSYK, A. K. , YEMELYANOV, N. P., MARKOVICH, I. M., POPKOV, V. I., SOVALOV, S. A., and SLAVIN, G. A.

Results of Some Researches, Carried out in the USSR on 600 kV long-distance Power Transmissions.

paper submitted for presentation at the Intl. Conf. on Large Electric Systems (CIGRE) 17th Biennial Session, Paris, France, 4-14 June 1958.

Electra, No. 30, Nov 57, periodical news letter issued by the CIGRE, Paris France.

ACC NR: AP6035702   (N)   SOURCE CODE: UR/0413/66/000/019/0048/0048

INVENTORS: Azovtsev, A. A.; Bolkhovitinov, V. K.; Ivanova, V. A.; Kolpakova, G. A.; Kyun, Ye. V.; Savel'yev, Yu. F.; Drozdov, A. I.; Byunau, A. E.

ORG: none

TITLE: A device for automatically controlling the movement of ship models on deeply immersed underwater vanes. Class 21, No. 186547 /announced by Central Scientific Research Institute imeni Academian A. N. Krylov (Tsentral'nyy nauchno-issledovatel'skiy institut)/

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 48

TOPIC TAGS: shipbuilding engineering, model test, simulation test facility, automatic control system

ABSTRACT: This Author Certificate presents a device for automatically controlling the movement of ship models on deeply immersed underwater vanes, with the use of a tow device and of a measuring arm. The design makes it possible to accomplish the programmed changes of the model, conforming to angles of trim difference, of heeling, and of yaw. It also makes it possible to measure the instantaneous values of all these angles and the magnitudes of the vertical displacement of the model. The lower end of the measuring arm is mounted on a Cardan ball joint. The upper end of the arm is set in a control housing which is the inner frame of a second Cardan joint.

Card 1/2   UDC: 621.501.72:629.12.014.5

ACC NR: AP6035702

The outer frame of this second Cardan joint is rigidly fastened to the frame of the tow device.

SUB CODE: 13, 14/   SUBM DATE: 06Aug64

Card 2/2

KOLPAKOVA, I.D.

LASTOVSKIY, R.P.; KOLPAKOVA, I.D.; IVANOVA, N.I.

Cyclohexylamine-N,N-diacetic acid. Met. poluch. khim. reak. i prepar. no.6:60-62 '62.

Benzylamine-N,N-acetoacetic acid.   Ibid.:62-63

(MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh reaktivov i osobo chistykh khimicheskikh veshchestv.

LASTOVSKIY, R.P., doktor khimich.nauk; KOLPAKOVA, I.D., kand.khimich, nauk;
    DYATOLOVA, N.M., kand.khimich.nauk; TEMKINA, V.Ya., kand.khimich.
    nauk

    Use of complexons in analytical chemistry. Zhur.VKHO 9 no. 2:
    138-145 '64.   (MIRA 17:9)

LASTOVSKIY, R.P.; KOLPAKOVA, I.D.; MIRONOVA, Ye.I.

Benzhydrylamine-N,N-diacetic acid. Met. poluch. khim. reak. i prepar. no.6:63-65 '62. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh reaktivov i osobo chistykh khimicheskikh veshchestv.

LASTOVSKIY, R.P.; KOLPAKOVA, I.D.; KOZHELENKO, L.I.

Aniline-N-N-diacetic-o-arsonic acid. Met. poluch. khim.
reak. i prepar. no.6:65-67 '62.   (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh
reaktivov i osobo chistykh khimicheskikh veshchestv.

LASTOVSKIY, R.P.; KOLPAKOVA, I.D.; IVANOVA, N.I.

m-Phenylenediamine-N,N,N', N'-trtraacetic acid. Met.
poluch. khim. reak. i prepar. no.6:72-73 '62.   (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh
reaktivov i osobo chistykh khimicheskikh veshchestv.

BYKOV, A.M.; TOTSKIY, A.N.; KOLPAKOVA, L.D.

Vibratory burr removal from machine parts. Mashinostroitel'
no.7:14-15 Jl '64.   (MIRA 17:8)

LASTOVSKIY, R.P.; KOLPAKOVA, I.D.

a,a'a"-Triaminedibenzyldiphenylmethane-N,N,N', N",N"-
hexaacetic acid. Met. poluch. khim. reak. i prepar.
no.6:73-74 '62.   (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh
reaktivov i osobo chistykh khimicheskikh veshchestv.

Kolpakova I. D.

AUTHORS: Lastovskiy, R. P., Vaynshteyn, Yu. I.,   75-1-4/26
              Dyatlova, N. M., Kolpakova, I. D.

TITLE: New Complexons. (Novyye kompleksony).
              Information 3. Benzylaminodiacetic Acid and $\alpha,\alpha',\alpha"$-
              -Triaminodibenzyldiphenylmethanehexaacetic Acid
              (Soobshcheniye 3. Benzilamindiuksusnaya kislota i $\alpha,\alpha',\alpha"$-
              Triaminodibenzildifenilmetangeksauksusnaya kislota)

ABSTRACT: With the examples of methylaminediacetic acid (1),
              benzylaminediacetic acid (2) and benzhydrilaminediacetic
              acid (3) the influence exerted by the modification of the
              molecular weight upon the complex-forming properties of some
              complexones was determined.

$$CH_3N(CH_2COOH)_2 \qquad \bigcirc\text{-}CH_2N(CH_2COOH)_2 \qquad \bigcirc\text{-}CH\text{-}\bigcirc$$
$$\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad N(CH_2COOH)_2$$
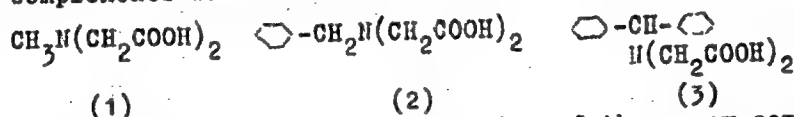
              (1)   (2)   (3)
              The investigation of the properties of these new compounds

Card 1/5

All-Union Sci Res. Inst. Chemical Reagents, Moscow

New Complexons .
Information 3. Benzylaminodiacetic Acid and α,α',α"-Triaminodibenzyl-
diphenylmethanehexaacetic Acid

was carried out polarographically. The displacement of the
half-wave potentials for a number of cations at different
P_H were also determined. In this connection it was found that
benzylaminediacetic acid at P_H 2,5 forms complex compounds
with the ions

Cu^{2+}, Bi^{3+}, Ni^{2+} and Sb^{3+}, at p_H 4,4 with the ions Cu^{2+}, Co^{2+}

and Mo(V), at p_H 9,35 with the ions Pb^{2+}, La(III) and at

p_H 12,4 with the ions Cu^{2+}, La(III) and Sb^{3+}.

A comparison between methylamine-, benzylamine- and
benzhydril amine-diacetic acid showed that an increase in
molecular weight under certain conditions causes an increase
in the complex-forming properties. The polarographic investi-
gation of α,α¹,α"-triaminedibenzyldiphenylmethanehexaacetic
acid (4) showed that this compound at P_H 2,5 forms complex
compounds with the ions

Pb^{2+}, Cu^{2+}, As(III), Ni^{2+}, Co^{2+} and Mo(VI), at p_H 4,4 with

Card 2/5   the ions Co^{2+}, Mo(VI), Fe^{3+}, at p_H 9,35 with the ions Pb^{2+},

New Complexons..
Information 3. Benzylaminodiacetic Acid and α,α',α''-
-Triaminodibenzyldiphenylmethanehexaacetic Acid

Bi^{3+}, Ni^{2+}, Cd^{2+}, Mn^{2+}, Cr^{3+} and La(III) and at P_H 12,4
with the ions Cu^{2+}, Ni^{2+}, Co^{2+} and Al^{3+}.

$$\bigcirc -CH-\bigcirc-CH-\bigcirc-CH-\bigcirc \qquad (4)$$
$$N(CH_2COOH)_2 \quad N(CH_2COOH)_2 \quad N(CH_2COOH)_2$$
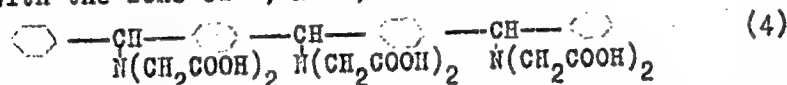
The formation of a number of complex compounds with this
complexone is dependent on time. Thus, e.g., at P_H 9,35 the
half-wave potential of cadmium amounts to from -0,6 to -0,76 V,
in this connection the height of the wave decreases from
16 to 11 mm and a second wave forms. The existence of two
waves can here not be caused by a stepwise reduction, as
cadmium does not show any intermediate stages in the
oxidation number. The formation of two waves may be
explained by the formation of different complex compounds
so slowly passing over into one another that each of them
is capable of forming its own wave. After 15 days standing
the second wave disappears and the reduction potential of
cadmium amounts to -0,7 V. On further standing no change

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New Complexons.
Information 3. Benzylaminodiacetic Acid and α,α',α''-
-Triaminodibenzyldiphenylmethanehexaacetic Acid

any more occurs. This phenomenon may be explained by the
presence of 3 complex-forming groups in α,α',α''-triamine-
dibenzyldiphenylmethanehexaacetic acid which form
intermediary complexes which one after another enter into
the reaction. For a more complete characterization of the
investigated new complexones the dissociation constants
of the formed complex compounds were determined in a
polarogrphic way. For benzylaminediacetic acid the dissocia-
tion constants of the complexes with copper and bismuth were
determined, for the disodium salt of benzhydrilaminediacetic
acid the dissociation constants of the complexes with copper,
cobalt, nickel, lanthanum and cadmium, and for α,α',α''-
-triaminedibenzyldiphenylmethanehexaacetic acid the dissociation
constants of the complexes with copper, lanthanum and
cadmium. The results of the polarographic investigations of
the disodium salt of benzhydrilaminediacetic acid had already
been published previously (ref. 1). The synthesis of
benzylaminediacetic acid and α,α',α''-triaminedibenzyldi-
phenylmethanehexaacetic acid are accurately described. There
are 2 tables, and 3 references, all of which are Slavic.

Card 4/3

AUTHORS: Lastovskiy, R. P., Kolpakova, I. D., and Dyatlova, N. M.

TITLE: New Complexons. Information 4. Synthesis and Study of the Complexons of the Triazine Series

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 4, pp. 419 - 423

TEXT: Continuing their study of the synthesis of new complexons (Refs. 1-3), the authors investigate here the effect of nitrogen in the triazine cycle upon its capability of forming complex compounds. The introduction of atoms capable of coordinating with metals into the complexon molecule increases its capability of forming complexes and, in many cases, increases the selectivity of complexons for several metal cations. It was of interest to study the effect of heteroatoms in cyclic compounds. For this purpose, the following complexons containing a 1,3,5-triazine cycle were prepared: 2-oxy-4,6-diamino-1,3,5-triazine-N,N,N',N'-tetraacetic acid (I) and 2,4,6-triamino-1,3,5-triazine-N,N,N',N',N",N"-hexaacetic acid (II) by condensing cyanur chloride with

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New Complexons. Information 4. Synthesis and   S/075/60/015/004/009/030/XX
Study of the Complexons of the Triazine Series B020/B064

imino diacetic acid. The complex-forming properties of the new compounds were polarographically studied by shifting the half-wave potential and determining the instability constants of the complexes of a number of cations. Table 1 indicates that the synthesized complexons form a number of compounds with metal ions, among which the following are of special interest: At pH 2.5, I reacts with Pb^{2+}, Cu^{2+}, Bi^{3+}, Cd^{2+}, Ni^{2+}, Mo^{VI}, and Ti^{IV}; at pH 4.4, apart from these ions, with As^{III} and Mn^{2+}; at pH 9.35 with Pb^+, Cu^{2+}, Cd^{2+}, As^{III}, Co^{2+}, and Mo^{VI}; and at pH 12 with Cu^{2+}, Cd^{2+}, Zn^{2+}, Ni^{2+}, and Bi^{3+}. At pH 4.4, II reacts with Pb^{2+}, Cu^{2+}, Mn^{2+}, Mo^{VI}, and Ti^{IV}; at pH 2.5, apart from these ions, with La^{III}, Tl^+, and Zn^{2+}; at pH 9.3 with Pb^{2+}, Cu^{2+}, As^{III}, Mn^{2+}, Mo^{VI}, and La^{III}; and at pH 12 with Cu^{2+}, Cd^{2+}, Ni^{2+}, and Mo^{VI}. To determine the influence of nitrogen atoms in the hetero-cycle upon the stability of the complexes being formed, the properties of compounds I and II were compared with one another and with m-phenylene diamine-N,N,N',N'-tetraacetic acid, which were synthesized and

Card 2/3

New Complexons. Information 4. Synthesis and   S/075/60/015/004/009/030/XX
Study of the Complexons of the Triazine Series B020/B064

polarographically examined for the purpose. The instability constants of
some complexes formed by the complexons examined with several metals were
determined polarographically (Table 2). The half-wave potential shifts of
the ion complexes with I and II are in all cases greater than with III,
while the tendency toward forming stable complexes with I is greater than
with II. I and II are characterized by the presence of the same group
capable of forming complexes with metal cations, i.e.,
$(HOOC-CH_2)_2 N - \underset{\|}{C} - N = \underset{|}{C} - N(CH_2COOH)_2$. The increased capability of II of
forming complexes may be ascribed to the presence of a symmetrical
molecule (three iminodiacetic acid groups). Finally, the synthesis of I and
II is described in detail. There are 2 tables and 6 references: 4 Soviet,
1 Swiss, and 1 German.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh
               reaktivov, Moskva (All-Union Scientific Research Institute
               for Chemical Reagents, Moscow)

SUBMITTED: April 14, 1959

Card 3/3

KOLPAKOVA, I. D.

Cand Chem Sci - (diss) "Synthesis of several new complexes and a study of their properties as a function of structure." Moscow, 1961. 7 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Lenin Chemical Technology Inst imeni D. I. Mendeleyev); 150 copies; price not given; (KL, 6-61 sup, 198)

LASTOVSKIY, R.P. (Moscow, Bogorodskiy val.d.3); DYATLOVA, N.M. (Moscow,
    Bogorodskiy val.d.3); KOLPAKOVA, I.D. (Moscow, Bogorodskiy
    val.d.3); TEMKINA, V.Ya. (Moscow, Bogorodskiy val.d.3); LAVROVA,
    O.Yu. (Moscow, Bogorodskiy val.d.3)

New complexones and possibilities of their application in
analytical chemistry. Acta chimica Hung 32 no.2:229-233
'6?.

1. Vsesoyuznyy nauchno-issledovatelskiy institut khimicheskikh
reaktivov.

KOLPAKOVA, L.L.

Changes in the plasma volume and protein composition of the
blood serum in late pregnancy toxemias. Akush. i gin. no.1:
130-133 '65.   (MIRA 18:10)

1. Kafedra akusherstva i ginekologii (zav.- prof. A.M. Mazhbits)
Novokuznetskogo instituta usovershenstvovaniya vrachey.

KOLPAKOVA, N.P.

Some problems in the theory of controlled systems. Priborostroenie
no.1:9-11 Ja '64.   (MIRA 17:2)

BPF(n)-2/EWT(d)/EWT(l)   Pg-b/Pk-b/P1-b/Po-b/Po-b/Pu-b/Pae-2   IJP(c)
AM. C/GS

ATS004116   5/0000/64/000/000 0194/0154

...va, N. P.

...ory of systems with several regulatable ...dinates

... uznoye soveshchaniye po teorii invariantnosti i yeye primeneniyu v
...ikh sistemakh, 2d, Kiev, 1962. Teoriya invariantnosti v sistemakh
...go upravleniya (Theory of invariance in automatic control systems);
...aniya, Moscow, Izd-vo Nauka, 1964, 144-153

...ntrol system, control theory, system stability, linear system,
...variant system, connected system

...e present work treats a variety of questions relating to the pos-
...ions of a system which make its channels autonomous and invariant.
...ch forces impinge on improperly regulated coordinates or in which
...ss-connections are called "connected systems." Part 1 considers
...ems with connections made according to improperly regulated co-
...rt 2 considers cross-connected, connected systems. In each case,
...ship between the system being autonomous and invariant is studied,
...e systems with connections according to perturbations. Part 4 con-

L 34511-65

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...ility properties of connected systems. Part 5 examines the de-
...the character of a dynamic connection on the properties of the re-
... and on the quality of the transition processes in each of the
...nels. Part 6 considers the problem of the synthesis of systems with
...stable coordinates. Orig. art. has: 4 figures and 33 formulas.

    None

24Sep64   ENCL: 00   SUB CODE: DP, IE

... 000   OTHER: 000

KOLPAKOVA, N.P., kand. tekhn. nauk

Choice of the structure of coupled control systems. Trudy MAI
No. 155:21-56 '64.   (MIRA 17:11)

ROGATINA, Nina Prokof'yevna; POPOVA, Zinaida Fedorovna; ARTMANIS, Stella
     Andreyevna; MEL'NIKOVA, Nina Ivanovna; AVDEYEVA Yekaterina Semenovna;
     KUZNETSOVA, Irina Pavlovna; ZHEREBINA, Anna Semenovna; VOYEVODINA,
     Aleksandra Dmitriyevna; KOLPAKOVA, Ninel' Yevgrafovna; KHAYEVA,
     Aleksandra Afanas'yevna; DUNDUKOVA, Valentina Petrovna;LAUSTEN, A.G.,
     nauch. red.; GABOVA, D.M., red.; VINOGRADOVA, G.A., tekhn. red.

[Women's and children's light dress] Zhenskoe i detskoe legkoe plat'e.
Moskva, Gostekhizdat, 1962. 493 p.   (MIRA 15:7)
                        (Dressmaking)

KOLPAKOVA, O.V.

36866 . Kozhnyye sosudistyye reaktsii u bol'nykh s sindromom boley v
oblasti serdtsa raelichnogo proiskhozhdeniya. Trudy Med. in-ta (Izhev. gos. med. in-t)
t. IX, 1949, s. 233-41

SO: Letopis' Zhurnal'Nykh Statey, Vol. 50, Moskva, 1949

1. KOLPAKOVA, P. F.

2. USSR (600)

4. Fire Clay-Charysh Region

7. Geology and mineral resources of the eroded surface of the Charysh region in the Altai Territory. Izv. Glav. upr. geol. fon. no. 2 1947.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

BREGETOVA, N.G.; KOLPAKOVA, S.A.

Gamasoidea, parasites of the water rat (Arvicola terrestris L.) and in-
habitants of its nests in the Volga delta. Paraz.sbor. 14:56-70 '52.
(MLRA 6:6)

1. Zoologicheskiy institut Akademii Nauk SSSR. Saratovskiy institut "Mi-
krob."   (Parasites--Water rats)   (Volga Delta--Mites)

BRECETOVA, N.G.; KOLPAKOVA, S.A.

Gamasid mites (Parasitiformes, Gamasoidea), parasites of small
murine rodents and inhabitants of their nests in the Volga Delta.
Parazit.sber.16:184-197 '56.   (MLRA 9:7)

1.Zoologicheskiy institut Akademii nauk SSSR i Saratovskiy institut
"Microb".
(Volga Delta--Mites) (Parasites--Rodentia)

KOLPAKOVA, S.A.

USSR/Zooparasitology - Acarine and Insect-Vectors of Disease   G-2
            Pathogens.

Abs Jour   : Ref Zhur - Biol., No 5, 1958, 19670

Author   : Kolpakova, S.A.
Inst   : —
Title   : Ecology of Fleas Ceratophyllus (Nosopsyllus) Mokrzeckyi
              Wagn.

Orig Pub   : Materialy k poznaniyu fauny i flory SSSR, Otd. zool.,
              1956, No 34(49), Ektoparazity, No 3, 149-161

Abstract   : In the Volga bottom lands and delta and in the hillock
              sands 11,606 fleas were collected from 5567 rodents
              (chiefly house mice) and 1133 nests. On house and field
              mice, on common field mice, and in nests, C. mokrzeckyi
              predominated. The abundance of fleas on animals and in
              nests was increased in the fall (which corresponded
              with the growth of animal numbers), remained high until
              the beginning of spring, and markedly decreased in summer.

Card 1/2

KOLPAKOVA, T. A.

"Certain Conditions of Formation of Nuclei in Bacteria," Arkhiv biol. nauk (Archives of the Biological Sciences), 25, 1-3, 100-110, 1945

KOLPAKOVA, T.A.; GOLIYENBIYEVSKAYA, Z.I.; SHEVTSOVA, N.I.; RYBINA, M.I.;
NIKITINA, N.N.; RYBAKOVA, L.F.; SHIPSHINA, N.D.; KORN, A.N.; KO-
ROVKIN, B.F.; KOSYAKOV, K.S.; STEPNAYA, A.A.

Suggestions made at the September 29, 1963, conference of "La-
boratornoe delo" readers, members of the Leningrad Society of Phy-
sicians and Laboratorians. Lab. delo 10 no.4:256 '64. (MIRA 17:5)

1. Predsedatel' pravleniya Leningradskogo obshchestva vrachey-la-
borantov (for Kolpakova). 2. Chleny pravleniya Leningradskogo ob-
shchestva vrachey-laborantov (for all except Kolpakova).

KOLPAKOVA, T.A.; SUDAKOV, V.P.

Hydraulic turbopump units for machine irrigation.
Trudy TIIIMSKH no.8:3-15 '57.   (MIRA 15:5)
          (Soviet Central Asia--Irrigation)
              (Pumping machinery)

S/064/60/000/007/008/010
B020/B054

AUTHORS: Kolpakova, T. D. and Barannik, V. P.

TITLE: Improvement of the Properties of ПБ (PB) Corrosion
             Inhibitors

PERIODICAL: Khimicheskaya promyshlennost', 1960, No. 7, pp. 68 - 70

TEXT: The authors describe the shortcomings of the PB-5 inhibitor which
consists of water-soluble condensation products of aniline and has a
molecular weight of about 400-600; its most important shortcomings are
the low stability of acid solutions of the inhibitor in the presence of
Fe^{3+}, and its pure solubility in dilute HCl. Instead of aniline, the in-
hibitor ПБ-8 (PB-8) contains ethanol amine which is soluble in dilute
acids, water, and lyes, but has a much lower protective action against
strong HCl than the inhibitor PB-5. The authors investigated the proper-
ties of inhibitors formed with partial substitution of aniline by
ethanol amine, i.e., which contained phenyl and ethanol groups alter-
natingly. They made nine preparations with aniline contents decreasing

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